20000 2039-6

PCT WORLD INTELLECTUAL PROPERTY ORGANIZATION
International Bureau

INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification 6 : G11B 5/596 — A1

(11) International Publication Number: WO 99/22369

(43) International Publication Date: 6 May 1999 (06.05.99)

(21) International Application Number: PCT/US98/13134

(22) International Filing Date: 29 June 1998 (29.06.98)

(30) Priority Data:
60/063,036 24 October 1997 (24.10.97) US

(71) Applicant: SEAGATE TECHNOLOGY, INC. [US/US]; 920 Disc Drive, Scotts Valley, CA 95066 (US).

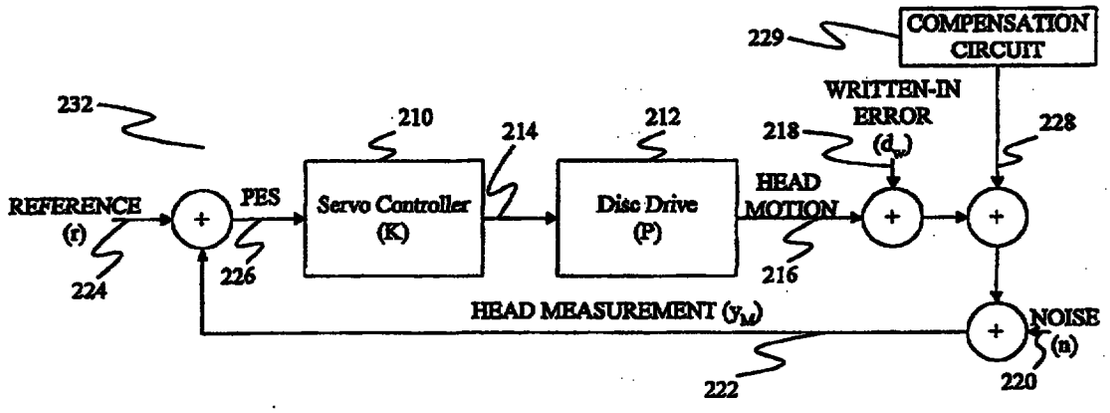
(72) Inventors: MORRIS, John, C.; 5045 Oliver Avenue South, Minneapolis, MN 55419 (US). POLLOCK, Brian, R.; 17403 Tessmer Court, Eden Prairie, MN 55347 (US). ELLIS, Timothy, F.; 25 Interlachen Place, Tonka Bay, MN 55331 (US).

(74) Agents: MAGEE, Theodore, M.; Westman, Champlin & Kelly, P.A., International Centre, Suite 1600, 900 Second Avenue South, Minneapolis, MN 55402–3319 (US) et al.

(81) Designated States: CN, DE, GB, JP, KR, SG.

Published
With international search report.

(54) Title: COMPENSATION FOR REPEATABLE RUN–OUT ERROR



(57) Abstract

A method and apparatus for compensating for repeatable run–out errors in a disc drive (100) is disclosed. The compensation (228) is created by determining transfer function values for a servo loop (232) in the drive (100) as well as a sequence of repeatable run–out values for a portion of a disc. The repeatable run–out values are divided by respective transfer function values to produce compensation values that are inverse transformed to produce time–domain compensation values (228). These time–domain compensation values (228) are injected into the servo loop (232) to compensate for repeatable run–out errors.